

DEPARTMENT OF HEALTH SERVICES

2151 BERKELEY WAY
BERKELEY, CA 94704

January 23, 1985

Mr. Alex Dong
Naval Facilities Engineering Command
P.O. Box 727
San Bruno, Ca 94066

Mr. Dong,

This letter is in regards to the Initial Assessment Study (IAS) of Hunter's Point Naval Shipyard (Disestablished) San Francisco, California. The purpose of the study was to "...identify and assess sites posing a potential threat to human health or to the environment due to contamination from past hazardous material operations." The IAS team located twelve locations where hazardous waste had been disposed of or had been spilled. These sites were located through records searches and interviews. The IAS team concluded that six of the twelve sites warrant a Confirmation Study, which involves sampling and monitoring wells. "A Confirmation Study is recommended for sites at which, (1) sufficient evidence exists to indicate the presence of contamination, and (2) the contamination poses a potential threat to human health or to the environment."

The Department of Health Services has reviewed the IAS Study and does not agree entirely with all of the conclusions in the Study.

Site #7, a high-pressure boiler power plant, is located in Bldg. 521. The plant was in operation from 1950 - 1969. Four to five hundred pounds of asbestos is outside of the building and exposed to the atmosphere. Fifteen containers of chemicals such as xylene, metal conditioners and paint have been abandoned outside. The IAS team has not recommended a Confirmation Study, but decided the asbestos and the chemical containers should be removed and cleaned up. The Department feels that soil samples should be taken in the proximity of the asbestos area and the chemical container area to verify that the soil has not been contaminated. The soil should be tested for asbestos, volatile organic compounds and heavy metals, using the appropriate Environmental Protection Agency analytical methods.

Site #8 is the Pickling and Plate Yard. The yard was in operation from 1947 to 1973. The site contains three empty acid storage tanks, three empty open (brick-lined) pits and an open, steel plate, storage rack area. The chemicals used on site were zinc chromate, sulfuric acid, sodium dichromate, and phosphoric acid. "Acid and zinc chromate residues from 25 years of painting operations coat most structures in this open pickling yard" to quote the IAS report. The report continues on to state that the site exhibits significant signs of primer residue and acid stains on the equipment, buildings and the ground. "In the past, most of the liquid hazardous materials and wastes were either stored in lined pits or discharged to the Bay. Today, the yard is paved and surface runoff drains into a sewer system. These conditions prevent plate yard contaminants from reaching the ground water or the Bay." The IAS team has not recommended a Confirmation Study, but they have recommended a clean-up program for the zinc chromate residue.

The pits were lined with brick and as such does not constitute an impermeable lining to acids. The report states that significant stains are on the ground, so this would indicate prior spillage of liquid hazardous materials. Since the yard has been only recently paved, paving of the yard would not preclude migration of hazardous materials and wastes into the groundwater or the Bay. The Department feels that not only is a clean-up program for the zinc chromate residue required, but also soil borings for each of the "lined" pits and the storage tanks as well as the paved yard area. The soil samples should be analyzed for heavy metals and chlorinated solvents using the appropriate EPA analytical methods.

Site #10 is the Tank Farm. The tank farm currently has one 4384 barrel and nine 286 barrel steel tank(s) on site. The tank farm was built in the early 1940's. A major spill occurred when a 286 barrel tank ruptured which consequently overextended the capacity of the containment berms. Signs of prior spillage is also evident in the area where horizontal tanks were removed as noted in the IAS report.

The IAS team has not recommended a Confirmation Study because the site is underlain by bedrock. The IAS report states that "the hydraulic conductivity of the bedrock is generally quite low unless there are major fractures underlying a particular site". The report fails to mention whether or not the bedrock underneath the tank farm is in sound condition. Since the site has evidence of previous spillage and the condition of the underlying bedrock has not been confirmed, further investigation is required to confirm that migration of hazardous materials and wastes have not occurred. The Department feels that soil borings are in order for the area where the ten existing steel tanks are located, as well as the area where the horizontal tanks were removed. The soil should be tested for oil and grease.

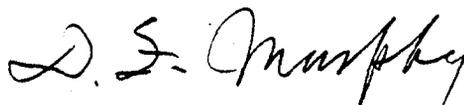
Site #12 is the Bay Sediments area immediately surrounding the Hunter's Point Naval Shipyard. The shipyard had a combined sanitary and storm sewer system from 1942 to 1977. Diversion structures would direct the flow of wastewater into the Bay during periods of high storm water runoff, which occurred about 9-12 times annually. The battery and electroplating shop, as well as the acid mixing plant, discharged industrial waste directly into the Bay between 1942 and 1970. The estimated flow was 12,000 gallons per day for twenty-eight years! The constituents were sulfuric acid, solvents, hexavalent chromium, cyanide, copper and lead from plating and battery overhaul operations. "The IAS team has concluded that the Bay bottom sediments found immediately below the shipyard shoreline is contaminated with heavy metals and other hazardous pollutants." "This site which has been documented to have contaminated sediment is best left undisturbed. Therefore, no further action for this site is recommended."

The IAS report states that a "48 hour sediment bioassay conducted in 1971 did not, however, show significant mortality to fish." The Department feels that a fish bioassay is not adequate to conclude that "no further action" is required. The Bay Sediments area immediately surrounding the Hunters Point Naval Shipyard shoreline requires characterization. The analysis shall include heavy metals and EPA priority pollutants using the appropriate EPA analytical methods. A bioaccumulation study for hazardous contaminants in fish and shellfish is required also.

Please regard the above as requirements by the Department of Health Services and therefore incorporate the above into your Confirmation Study. Please submit your Confirmation Study proposal, taking into account the above requirements of the Department, to this office by no later than February 15, 1986.

If you should have any question, please contact Alan Lui of my staff at (415) 540-3344.

Sincerely,



for Dwight R. Hoenig, Chief
North Coast California Section
Toxic Substances Control Division

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